

REMARKS

Claims 1-14 were previously pending in this application, with claims 1 and 7-14 in independent form. Claims 1 and 7-14 have been amended, herein. New claims 15 and 16 have been added. Applicants submit that no new matter has been entered by way of this amendment. Applicants respectfully request reconsideration of the above-identified application, in view of the above amendment and following remarks.

Specification Objection

The abstract of the disclosure has been objected to due to informalities. Specifically, the Office Action indicates the abstract is more than 150 words and includes implicit language. Applicants have herein amended the abstract of the disclosure to reduce the number of words in the abstract to fall within the 50 to 150 word limit.

Regarding the implicit language objection, the Office Action indicates that the language in the abstract “should avoid using phrases which can be implied, such as, ‘The disclosure concerns,’ ‘The disclosure defined by this invention’...” (See, Office Action, page 2, ¶ 3.) The Office Action objects to the abstract of the disclosure, “because line 1 contains the implied phrase ‘A radiator system includes’...” (See, Office Action, page 2, ¶ 3.) Applicants respectfully disagree that ‘A radiator system includes’ is an implied statement. The statement acts to provide a context for the various elements described in the abstract that are part of the “radiator system.” This type of introductory statement has been acknowledged as proper by the MPEP § 608.01(b), titled, “Sample Abstracts,” whose first sample discloses, “A heart valve which...” Although, the instant invention is directed to a radiator system instead of the

exemplary heart valve discussed in the MPEP, Applicants submit that the instant abstract is clear and concise. Accordingly, Applicants submit that the objections to the abstract have been overcome.

Claim Rejections – 35 U.S.C. § 102

Claims 1-14 have been rejected under 35 U.S.C. § 102(b), as being unpatentable over Akin, et al. (US Patent No. 5,151,777) (“Akin, et al.”). Applicants respectfully submit that independent claims 1 and 7-14, as well as the claims directly or indirectly dependent therefrom, are patentably distinct from the cited reference.

Amended independent claim 1 recites, *inter alia*:

A radiator system, ... [wherein] the width of at least one side of region which is occupied by the low expander in the thermal buffer is narrower than the width of the high-temperature body.

Akin, et al. disclose a broad width occupied by second materials (18), which have a low coefficient of thermal expansion, in interface devices (10) that is broader than the width of integrated circuit chips (12), which act as heat generators. More specifically, Akin, et al.’s low expansion second material 18 is distributed across a section of the copper conducting layer 16 broader than the lateral width of the silicon chip 10, as shown in Akin, et al.’s Figs. 1-4.

In direct contrast, as recited in independent claim 1, the width of at least one side of region occupied by a low expander in a thermal buffer is narrower than the width of the high-temperature body. Accordingly, as clearly shown in the figures of the instant application, an

embodiment of the invention includes a heat radiating passage passing through both sides of a low expansion material (32) wherein the low expanders are distributed in a region whose lateral width is more narrow than the lateral width of the high-temperature body 10. Advantageously, the relaxation of thermal stress caused by the difference of thermal expansion between the high-temperature body (10) and the substrate (30)/heat sink (20) is compatible with the radiating property from the high-temperature body (10) to the substrate (30)/heat sink (20).

Accordingly, Applicants respectfully submit that the recited, "width...of the low expander ...narrower than the width of the high-temperature body," in independent claim 1 is patentably distinct from the second materials (18) distributed in a range broader than the integrated circuit chip's lateral width disclosed in the Akin, et al. patent. Further, Applicants respectfully submit that for at least a similar reason claims 2-6 and new claims 15-16, which are dependent on independent claim 1, as well as, independent claims 7-14 are also patentably distinct from the cited reference. Therefore, Applicants respectfully request withdrawal of this ground of rejection.

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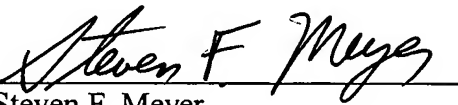
CONCLUSION

It is now believed that all pending claims are in condition for allowance. In view of these remarks, an early and favorable reconsideration is respectfully requested.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

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By: 
Steven F. Meyer
Registration No. 35,613

Correspondence Address:
MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, NY 10154
(212) 758-4800 (telephone)
(212) 751-6849 (facsimile)